



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,216	05/24/2001	Dieter H. Nattkemper	100.211US01	2600
27073	7590	04/11/2006	EXAMINER	
LEFFERT JAY & POLGLAZE, P.A. P.O. BOX 581009 MINNEAPOLIS, MN 55458-1009			HSU, ALPUS	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 04/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/865,216

Applicant(s)

NATTKEMPER ET AL.

Examiner

Alpus H. Hsu

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11, 28-38, 43 and 44 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-11, 28-38, 43, 44 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

Art Unit: 2616

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-6, 8-11, 28-33, 35-38, 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over CROWE et al. in U.S. Patent No. 6,928,068 B1 in view of RAWSON et al. in U.S. Patent No. 6,028,867 (both of records).

Regarding claims 1, 3, 28, 30 and 43, CROWE et al. discloses a system for extending the effective distance of digital subscriber line service, the system comprising: a central office terminal (205), the central office terminal including: a data interface (211); and a plurality of line units (209); at least one communication link (D-V + DATA line), coupled to one of the plurality of line units, that carries signals using digital subscriber line service; at least one remote access multiplexer (141), coupled to the at least one communication link, wherein the at least one remote access multiplexer includes a plurality of ports that are adapted to provide digital

Art Unit: 2616

subscriber line service; the remote access multiplexer adapted to multiplex signals between the plurality of ports and the at least one communication link (see col. 5, lines 1-10).

CROWE et al. differs from the claims, in that, it fails to specifically disclose that the at least one remote access multiplexer is located at a distance from the central office terminal so as to provide digital subscriber line service to user terminals that are located more than 12 kilo-feet from the central office terminal or located between 12 and 30 kilo-feet from the central office terminal. However, CROWE et al. does indicate that ADSL can transmit data over distances up to 18 kilo-feet at 1.544 Mbps, and up to 12 kilo-feet at 8 Mbps (see col. 2, lines 35-39). And the setup of location of the remote access multiplexer between the central office and the user terminals is well known in the art and can be easily implemented by one of ordinary skill in the art as design choice.

RAWSON et al., from the similar field of endeavor, teaches the setup of remote access multiplexer being located at a distance from the central office terminal so as to provide digital subscriber line service to user terminals that are located more than 12 kilo-feet from the central office terminal (see col. 3, lines 23-33), which can be easily adopted by one of ordinary skill in the art to implement into the system of CROWE et al., to provide the DSL services over an extended distance to further improve the system capability for customer service.

Regarding claims 2 and 29, CROWE et al. discloses that the central office further includes a telephony interface (217).

Regarding claims 4 and 31, CROWE et al. discloses that the system further including a splitter at the remote access multiplexer that provides telephony service over the ports of the remote access multiplexer (see col. 2, lines 45-54).

Art Unit: 2616

Regarding claims 5 and 32, CROWE et al. discloses the at least one communication link provides single high speed digital subscriber line service (see col. 2, lines 17-27).

Regarding claims 6, 8, 33 and 35, CROWE et al. discloses the at least one communication link comprises four communication links and each of the at least one communication links supports up to 8 ports of a corresponding remote access multiplexer (not shown).

Regarding claims 9-11, 36-38 and 44, CROWE et al. discloses the central office terminal is located at a central office, the central office terminal is subtended from a remote unit of a digital loop carrier, and the central office terminal is a digital loop carrier (see Figure 2).

4. Claims 7 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over CROWE et al. in U.S. Patent No. 6,928,068 B1 in view of RAWSON et al. in U.S. Patent No. 6,028,867 as applied to claims 1 and 28 above, and further in view of GERSZBERG et al. in U.S. Patent No. 5,970,473 (all of records).

Regarding claims 7 and 34, the system provided from the teaching of CROWE et al. in view of RAWSON et al. fails to disclose the feature of the remote access multiplexer is powered over the at least one communication link to support lifeline plain old fashion telephone service, which is well known in the art and commonly used in telecommunications field for continuous telephone service in the event of power failure.

GERSZBERG et al., from the similar field of endeavor, teaches the use of a lifeline service, which can be easily adopted by one of ordinary skill in the art into the system of CROWE et al. in view of RAWSON to provide continuous telephone service in the event of power failure to further improve the system reliability.

Art Unit: 2616

5. Applicant's arguments filed February 3, 2006 have been fully considered but they are not persuasive.

In the remark, the applicant mainly argues that Crowe or Rawson reference, alone or in combination teaches or suggests the identified link (D-V + Data line) uses a DSL service to carry signals over the identified link. The examiner disagrees since in Crowe reference alone, it clearly describes the feature of the identified link (D-V + Data line) uses a DSL service to carry signals over the identified link (see col. 10, lines 15-61) since the connection between the DSL line card (209) and DSL CPE (107 or 131) and the connection between the DSL line card to the controller (215), each involves the transmission of packetized data signals and/or digital voice stream, which clearly demonstrate the data delivery utilizing the DSL service as claimed. In view of the reasoning, the examiner believes that the 103 rejection regarding claims 1-11, 28-38, 43 and 44 should be sustained.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

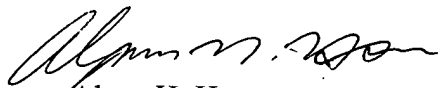
Art Unit: 2616

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alpus H. Hsu whose telephone number is (571)272-3146. The examiner can normally be reached on M-F (5:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571)272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AHH



Alpus H. Hsu  
Primary Examiner  
Art Unit 2616